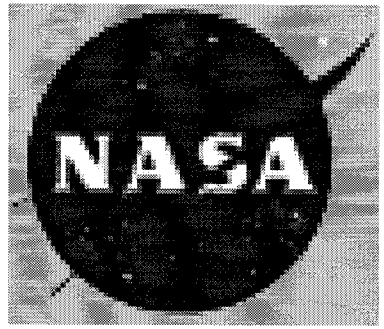

A NASA Approach to ELDRS in Linear Devices

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A NASA Approach to ELDRS in Linear Devices

Abstract

The present status of NASA's developing approach to the characterization and use of parts which exhibit enhanced low dose rate sensitivity is presented. Since the discovery that some bipolar devices exhibit enhanced degradation at significantly lower dose rates than is typical of ground test data, the industry has struggled to develop cost effective bounding test methods for the effect. Testing at low dose rates has led to significant increases in costs. Though some progress has been made to understand the degradation mechanisms, there is still more to be done before a more cost effective accelerated test method can be developed and accepted. The NASA approach for testing ELDRS sensitive parts retains the industry accepted method of testing at 0.01 R/s, but allows the flexibility to used higher dose rate data for programs with a low total dose requirement.